

ICS 87.040
CCS G 50



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 21782.11-2010

Coating powders -- Part 11: Inclined-plane flow test

粉末涂料 第11部分：倾斜板流动性的测定

(English Translation)

Issued on: September 26, 2010

Implemented on: August 1, 2011

Issued by: Standardization Administration of China

Table of Contents

Foreword

1 Scope

2 Normative references

4 Instrument

Foreword

GB/T 21782 "powder coating" is composed of 14 parts, the structure and corresponding international standards are as follows.

- Part 1. Determination of particle size distribution by sieving (ISO 8130-1:1992, IDT);
- Part 2. Comparison of the proportion of instrument gas density determination (ISO 8130-2:1992, IDT);
- Part 3. Determination of liquid displacement pycnometer density (ISO 8130-3:1992, IDT);
- Part 4. lower explosion limit calculations (ISO 8130-4:1992, IDT);
- Part 5. Powder air mixture flow measurement (ISO 8130-5:1992, IDT);
- Part 6. Determination (eqv ISO 8130-6:1992) at a given temperature thermosetting powder coating of gel time;
- Part 7. Determination (ISO 8130-7:1992, IDT) mass loss during baking;
- Part 8. Evaluation of the storage stability of thermosetting powders (ISO 8130-8:1994, IDT);
- Part 9. Sampling (ISO 8130-9:1992, IDT);
- Part 10. Determination of deposition efficiency (ISO 8130-10:1998, IDT);
- Part 11. Determination of flow inclined plate (ISO 8130-11:1997, IDT);
- Part 12. Determination of compatibility (ISO 8130-12:1998, IDT);
- Part 13. Laser diffraction particle size analysis (ISO 8130-13:2001, IDT);
- Part 14. Terminology (ISO 8130-14:2004, IDT).

This is Part 11 GB/T 21782 of.

1997 "powder coating Part 11 Determination of flow inclined plate" (English. This section

uses the translation method identical with ISO 8130-11 Chinese Version), formatted according to GB/T 1.1-2000 write.

For ease of use of ISO 8130-11:1997 in this section do major editorial changes as follows.

--- With "this Part" instead of "ISO 8130 part of this";

--- Delete international standards foreword.

This part is proposed by the China Petroleum and Chemical Industry Association.

This part of the National Standardization Technical Committee and the pigment coating (SAC/TC5) centralized.

1 Scope

This section GB/T 21782 specifies the thermosetting powder coating when measured at a fixed angle along the inclined plate flow characteristics of the melt flow down Setting Method.

The test results provided in this section indicates that the extent of the powder coating during cure melt flows. Such melt flow characteristics, direct Affect the coating adhesion, appearance and extent of coverage of the coating angular edges.

This test method can be used as an effective way to check the extent of a particular coating powder characteristics vary between batches and batches. this Test does not expect to provide different powder coating composition measured the relationship between the results.

For at the test temperature, according to ISO 8130-6:1992 specified below measured by the gel time of the powder coating 1min, the present method does not to provide meaningful results.

2 Normative references

The following documents contain provisions which, through reference GB/T 21782 in this section constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 21782.2-2008 powder coatings - Part 2. Determination of the density of gas specific gravity meter comparative method (ISO 8130-2:1992, IDT) GB/T 21782.3-2008 powder coatings - Part 3. Determination of liquid displacement pycnometer density (ISO 8130-3:1992, IDT) GB/T 21782.9-2010 powder coatings - Part 9. Sampling (ISO 8130-9:1992, IDT) ISO 8130-6:1992 powder coatings - Part 6. Determination of

thermosetting powder coatings at a given temperature to the gel time Principle 3 the thermosetting powder paint and compressed into tablets in a standard-size cylindrical mold. Under certain conditions of temperature and compressed into tablets powder coated After the inclined plate material heating and melting, flow along the inclined surface, the flow length was measured.

4 Instrument

4.1

Hot air circulation oven. to maintain a stable temperature, the maximum temperature up to 250 °C, circulating fan can be turned on and off as needed.

4.2

glass. the right size, can be applied to this test.

Note: Float glass photographic plate is suitable.

You can also choose a metal plate used for the test. However, the need for strict regulations composition of the metal plate and its surface finish. Plates should be strong enough to ensure that the testing process does not appear bent or deformed. Specific details of the metal plate should be included in the test report (Chapter 9).

4.3

pallet. Use appropriate metal plate and can be placed in the oven (4.1). The device should be placed one or more of the plate (4.2), with a joystick device may be placed in a metal plate from a horizontal position to a tilt angle of $65^{\circ} \pm 1^{\circ}$ position.

4.4

Balance. Precision 10mg.

4.5

for the cylindrical die machine. connection with a rod, can be obtained having a diameter of $12.5\text{mm} \pm 0.05\text{mm}$, thickness of $6.5\text{mm} \pm$